IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Tucker et al.   Art Unit   : 2164
Serial No. : 10/812,901   Examiner : Cory C. Bell
Filed   : March 31, 2004   Conf. No. : 4995
Title   : METHODS AND SYSTEMS FOR EFFICIENT QUERY REWRITING

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF PAUL TUCKER, AMIT SINGHAL AND ERIC JACKSON

UNDER 37 C.F.R. § 1.131

We, Paul Tucker, Amit Singhal and Eric Jackson hereby declare:

1.   That we are the co-inventors of the claims in the above-captioned patent application.

2.   That in an Office Action dated April 2, 2007, certain claims were rejected as being unpatentable over US Patent Application Publication 2005/0222975 (hereinafter "Nayak"), including independent claims 1 and 23.

3.   That Nayak was filed March 30, 2004.

4.   That prior to March 30, 2004, and thus necessarily before the filing date of Nayak, we worked in this country to complete the conception of the invention recited in presently pending independent claims 1 and 23 of the above-captioned application, as evidenced by copies of two pages from an electronic design document, which are attached in Exhibit A.

5.   Shown on page one of Exhibit A is a description of a cache (query correlation table) for maintaining rewritten queries (modified search queries) for frequently received queries (first queries). Shown on page two of Exhibit A is a further description of receiving requests for a query rewrite (e.g., in response to receipt of a second query that is similar to a related search query) and providing a corresponding query rewrite when one is available (substituting the modified search query for at least a portion of the second query).

6.   The dates on the electronic design document, portions of which are shown in Exhibit A, are evidenced both by timestamps on a server-based document repository, into which this electronic design document was checked, and a document revision history at the end of the

Applicant : Tucker et al.   Attorney's Docket No.: 16113-339001 / GP-221-00-US
Serial No. : 10/812,901
Filed   : March 31, 2004
Page   : 2 of 2

electronic design document. These dates have not been provided, but they are all before March 30, 2004.

7. The submitted pages of the electronic design document contain additional confidential matter that is not directly relevant to evidencing prior invention of the independent claims at issue; accordingly, this additional confidential matter has been redacted from the pages submitted in Exhibit A.

8. That we hereby declare that all statements made herein of our knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.
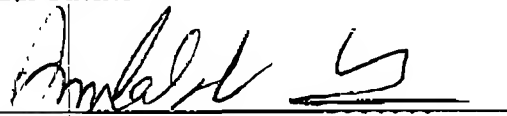
Dated: June 28, 2007

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Paul Tucker

Dated: June 28, 2007

_____
Amit Singhal

Dated: _____

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Eric Jackson

60437750.doc

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Page   : 2 of 2

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Dated: _____   _____
                                   Paul Tucker

Dated: _____   _____
                                   Amit Singhal

Dated: _August 30, 2007_   _E̶r̶i̶c̶ ̶J̶a̶c̶k̶s̶o̶n̶_____
                                   Eric Jackson

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EXHIBIT A

Sam Query Rewriting Cache

Paul Tucker
Amit Singhal
Ben Goines

Objective

We aim to achieve much of the benefit of Sam rewriting, in production, with negligible impact on latency and throughput by maintaing a cache of rewritten queries for only the most frequent queries where rewriting makes a difference. The overall approach is to have an offline process that creates tables of rewritten queries that can be searched very quickly online The queries to put in the table are taken from the most frequent queries seen in the recent past.

Detailed Design

qrewrite

The online qrewrite server will respond to requests from a gws for a query rewrite. It will return the corresponding rewritten query from an in-memory cache when available, or a message indicating that none is available. Where a rewritten query is available, gws will substitute it for the canonicalized query that it sends to the index and docservers. The qrewrite server will continue to utilize the same query rewritting command and result protocol buffers defined for the sam_rewriteserver. (When no rewritten query is available, the result will be an empty string.)